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CHANKONG, DOHIM				
ART UNIT		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary

Application No.

10/058,268

Applicant(s)

EDWARDS ET AL.

Examiner

DOHM CHANKONG

Art Unit

2452

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3, 4, 6-12, 14, 15, 17-23, 25, 26, and 28-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 4, 6-12, 14, 15, 17-23, 25, 26, and 28-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Drafts/Person's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This final rejection is in response to Applicant's amendment filed on 12/18/2009. Claims 1, 8, 12, 19, 23, and 30 are amended. Claims 2, 5, 13, 16, 24, and 27 were previously cancelled. Accordingly, claims 1, 3, 4, 6-12, 14, 15, 17-23, 25, 26, and 28-33 are presented for further examination.

I. RESPONSE TO ARGUMENTS

Applicant amends the independent claims to include limitations reciting that the universal interface and the data transfer session object comprise object-oriented mobile code. Applicant argues that neither *Reed* nor *Zintel* disclose these new limitations. Applicant's arguments are not persuasive for the following reasons.

A. *Zintel's* UPnP still reads on Applicant's claimed universal data transfer interface.

The previous rejection relied on *Zintel's* universal plug-and-play interface (UPnP) to teach the claimed universal data transfer interface. Applicant argues that *Zintel's* UPnP cannot read on the claimed interface because (1) UPnP uses XML for device description and (2) accesses file system using URL links while the interface is based on object-oriented mobile code having no a priori knowledge of the components' file system.

1. The device description is based on both XML and object oriented mobile code (Java).

Zintel describes the description document includes a declaration of methods for the service and that these methods may be implemented in a variety of different object-oriented programming languages such as CORBA or Java classes [column 21 «lines 56-64»]. Thus,

while Applicant is correct in stating that *Zintel*'s UPnP is based on XML, the UPnP also contains mobile code to implement the methods for accessing the specific service for communication.

There is no claim language that requires only mobile code and precludes XML as being part of the universal data transfer interface. Thus, *Zintel*'s UPnP still reads on the claimed interface as claimed.

2. *Zintel*'s UPnP does not require a priori knowledge of the components' file system.

Applicant notes that *Zintel* discloses that there are URL links that allow devices to access file systems. However, Applicant's limitation requires that the components do not have knowledge of the file system or printer protocols. This limitation does not mean that the components do not have access to the file system itself.

Zintel's teaching simply allows components to access another component's file system through a URL link but does not necessarily provide any file system protocols. The devices simply use the links at the time of communication to transfer files between the devices.

There is no claim language that precludes devices from accessing other devices' file systems. Therefore, *Zintel*'s UPnP reads on the claimed interface as claimed.

B. *Reed*'s communication object still reads on the claimed data transfer session object as claimed.

The previous rejection relied on *Reed*'s communication object to teach the claimed data transfer session object (DTSO). *Reed* describes that his invention uses object oriented programming for "combining data, metadata, and methods for storage and transfer" [column 8 «lines 54-56»]. *Reed* then describes the communications object as part of a programming class [column 17 «lines 26-34»].

Based on at least the foregoing citations, *Reed's* communications object is clearly based on object oriented programming. Moreover, since *Reed* discloses that the communications object is transferred devices over a network [column 17 «lines 43-46»], the communications object is also "mobile code" as claimed.

C. Conclusion

For the foregoing reasons, Applicant's amendment does not overcome the cited references. The rejections as set forth in the previous action are therefore maintained.

II. CLAIM REJECTIONS - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

A. Claims 1, 3-12, 14-23, and 25-33 are rejected under 35 U.S.C § 103(a) as being unpatentable over *Reed et al*, U.S Patent No. 6.345.288 [*"Reed"*], in view of *Bischoff et al*, U.S Patent No. 6.718.377 [*"Bischoff"*], in further view of *Zintel*, U.S. Patent No. 6.779.004.

The examiner previously cited *Zintel* in the PTO-892 filed on 11/14/2005. All citations in the following claim mappings are to *Reed* unless otherwise noted.

Claims 1, 8, 12, 19, 23, and 30

Reed as modified by *Bischoff* and *Zintel* discloses a system for enabling components to transfer data between each other, the system comprising:

a processor [column 13 «lines 12-18»];

a memory [column 13 «lines 12-18»];

a plurality of components including a first component having a data object; [Figure 1 | column 7 «line 59» to column 8 «line 3» | column 105 «line 66» to column 106 «line 16» where : *Reed*'s distribution service object is analogous to Applicant's data object];

a universal data interface comprising object-oriented mobile code [*Zintel*, column 21 «lines 56-64»], which can be transmitted to and executed on the plurality of components to facilitate file access and printing without knowledge of the components' file system protocols or printer domain protocols, prior to initiating a data transfer [*Zintel*, column 5 «lines 57-62»: a universal plug and play interface "that enables any networked device to initiate a communication with any other networked device, without having established a prior relationship" | column 25 «lines 57-65»: a device provides another device with a URL to its file system path | column 48 «lines 42-50»: providing links to the device's file system];

wherein the data object controls the universal data transfer interface [column 105 «line 66» to column 106 «line 16»];

a second component capable of receiving the data object [Figure 1 «item 32» | Figure 28 «item 1302»] and invoking the universal data transfer interface to cause a data transfer session object (DTSO) to be sent to the second component [column 98 «lines 14-24»: where :the communications object is sent using the methods (interface) of the distribution service object], and capable of providing a viewer object that enables the third component to display transferred data associated with the DTSO's data type [see response to arguments above | column 15 «lines 18-26» | column 24 «lines 14-21» | column 50 «lines 58-65»: both "interface programs" and communication objects read on the claimed viewer object because *Reed* uses both to display data

of different formats and protocols], wherein the second component acts as an intermediary component, which facilitates transferring of the DTSO from the first component to a third component [Figure 1 | Figure 28 | column 12 «line 63» to column 13 «line 3» | column 14 «lines 43-53» | column 86 «lines 64-66» : transferring of the message object with the communications object and *Reed's* web server corresponds to the second component. The distribution server facilitates transferring of the DTSO from the first component (provider computer) to the third component (consumer computer)];

wherein the DTSO includes source-specific object-oriented mobile code that can be interpreted and performed by the first component or the third component [column 8 «lines 54-56» | column 17 «lines 26-46»: *Reed's* communications object is analogous to Applicant's claimed DTSO];

wherein the DTSO is capable of being invoked by the third component to transfer data between the first component and the third components [column 8 «lines 6-19» | column 17 «lines 25-28» | column 67 «lines 17-65» | column 70 «lines 51-67» where : *Reed's* communications object is analogous to Applicant's claimed DTSO];

wherein the DTSO includes instructions to return data types supported by the first component [*Bischoff*, Figure 4 | column 2 «lines 20-30» | column 7 «lines 56-67»];

wherein the DTSO includes instructions that enable the first component to receive asynchronous event notifications [column 14 «lines 24-56» : “notification of the provider” | column 56 «lines 15-52»];

wherein the DTSO includes instructions to return device type and operating status of the first component [column 49 «lines 21-50»]; and

wherein the DTSO includes instructions to enable the first component or the third component to negotiate with each other to select a transfer medium to use to transfer data based upon the type of data [column 12 «lines 44-50» | column 53 «line 54» to column 54 «line 49»].

As indicated in the foregoing mapping, *Reed* does not expressly disclose a data transfer interface which does not have knowledge of the components' file system protocols or printer domain protocols prior to initiating a data transfer nor does *Reed* disclose instructions to return data types supported by the first component. However, both features were well known in the art at the time of Applicant's invention as evidenced by *Zintel* and *Bischoff*.

Zintel teaches the first missing feature. *Zintel* is discloses a universal plug and play interface "that enables any networked device to initiate a communication with any other networked device, without having established a prior relationship" (emphasis added) [column 5 «lines 57-62»] or "any prior or persistent knowledge of the capabilities (or schema) of the Service" [column 9 «line 67» to column 10 «line 1»].

Since the devices do not have a prior relationship, it would have been reasonable for one of ordinary skill in the art to have inferred that the devices had no knowledge of the other devices' protocols or interfaces including file system domain and printer domain protocols. Furthermore, *Zintel* further discloses that the devices do not have any prior knowledge about other devices include not knowing the file system protocol or printer domain protocol of another device [column 7 «lines 30-45»: providing a printing interface | column 18 «lines 10-20»: path as a file system | column 48 «lines 42-50»: providing links to the device's file system].

It would have been obvious to one of ordinary skill in the art to have modified *Reed* to include *Zintel*'s universal data interface. *Zintel* discloses that such an interface improves prior

art interfaces such as *Reed*'s by allowing network devices to communicate with one another without having established a prior relationship.

As to the second missing feature, *Reed* does disclose that the second component (provider computer) is aware of the data type supported by the first component (consumer) [column 14 «lines 21-59»] and also the first component can provide means, such as special forms, for the second component to return specific types of data [column 14 «lines 26-32»]. *Reed* however does not expressly disclose instructions to return data types supported by the first component.

In the same field of invention, *Bischoff* is directed towards a system with a provider and consumer computer (analogous to claimed second and first component, respectively) [abstract]. Like *Reed*, the provider and consumer are enabled to communicate with one another using a standardized interface comprised of various communication objects located at the computers [column 2 «lines 14-30 and 65-67»]. To achieve this functionality, *Bischoff* discloses returning data types from the consumer computer that are supported by the consumer computer to the provider computer to enable communications between the consumer and provider computer [Figure 4 | column 2 «lines 20-30» | column 7 «lines 56-67»]. It would have been obvious to one of ordinary skill in the art to modify *Reed* with *Bischoff*'s teachings. One would have been motivated to provide such a combination to provide a means for *Reed* to obtain the supported data formats and types of a consumer computer as represented by *Bischoff*'s feature.

Claims 3-7, 9-11, 14-18, 20-22, and 25-33

As to claim 3, *Reed* as modified by *Zintel* and *Bischoff* discloses the at least one of the plurality of components sends a second DTSSO to the first component to be used by the first

component for receiving data transmitted from the at least one of the plurality of components [column 42 «line 31» to column 43 «line 14» | column 74 «lines 37-42»].

As to claim 4, *Reed* as modified by *Zintel* and *Bischoff* discloses the at least one of the plurality of components receives the DTSO from the first component to be used by the at least one of the components for receiving data transmitted from the first component [column 67 «lines 18-65»].

As to claim 5, *Reed* as modified by *Zintel* and *Bischoff* discloses the universal data transfer interface and the DTSO have source-specific object-oriented mobile code that can be interpreted and performed by the first component or the at least one of the plurality of components [column 8 «lines 52-64» | column 21 «lines 14-25»].

As to claim 6, *Reed* as modified by *Zintel* and *Bischoff* discloses the DTSO comprises instructions to enable the first component or the at least one of the plurality of components to negotiate with each other to transfer data, to select a communications protocol configured to transfer data between each other based upon a type of data to be transferred [column 12 «lines 44-50» | column 14 «lines 39-60»].

As to claim 7, *Reed* as modified by *Zintel* and *Bischoff* discloses the DTSO is configured to indicate completion responsive to the first component or to the at least one of the plurality of components indicating that the data transfer has completed or failed [column 85 «line 60» to column 86 «line 10»].

As to claims 9-11, as they do not teach or further define over the previously claimed limitations, they are similarly rejected for at least the same reasons set forth for claims 1, 4 and 7.

As to claims 12-18 and 23-29, as they do not teach or further define over the previously claimed limitations, they are rejected for at least the same reasons set forth for claims 1-7, respectively.

As to claims 20-22 and 31-33, as they do not teach or further define over the previously claimed limitations, they are rejected for at least the same reasons set forth for claims 4 and 7.

III. CONCLUSION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DOHM CHANKONG whose telephone number is (571)272-3942. The examiner can normally be reached on Monday-Friday [8:30 AM to 4:30 PM].

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on 571.272.3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dohm Chankong/
Primary Examiner, Art Unit 2452